

NRC INSPECTION MANUAL

DI

PART 9900: TECHNICAL GUIDANCE

IEEE450.TG

INSTITUTE OF ELECTRICAL AND ELECTRONIC ENGINEERS
IEEE STANDARD 450-1975

A. PURPOSE

To provide guidance on IEEE Standard 450-1975 relative to performance and service testing of batteries as provided by an NRR memorandum dated November 1, 1985.

B. BACKGROUND

Region III requested assistance from NRR in resolving conflicting commitments, when a licensee committed to both the 1975 and 1980 standards of IEEE 450. The conflict concerned the method of conducting performance and service tests relative to battery testing and maintenance. In Section 1.8 of its FSAR, the licensee committed to implementing IEEE Standard 450-1975 and in Section 8.1 of its FSAR, the licensee committed to implementing IEEE Standard 450-1980. Section 8.1 of the FSAR discusses battery maintenance and testing. The 1975 version requires that an equalizing charge and battery preventive maintenance not be completed prior to doing any performance or service testing. The 1980 version also requires that an equalizing charge and battery preventive maintenance not be performed prior to service testing when the battery test results are to reflect maintenance practices.

C. DISCUSSION

The licensee in using the 1980 standard considered the use of an equalizing charge and/or the performance of preventive battery maintenance, before conducting a performance or service test, to be an option determined at the discretion of the licensee. The licensee did commit in its FSAR to the requirements of Regulatory Guide 1.129, "Maintenance, Testing, and Replacement of Large Lead Storage Batteries for Nuclear Power Plants," which endorses the 1975 IEEE standard. The licensee in discussions with NRR, agreed to resolve the conflict in the FSAR and perform the battery service test in accordance with IEEE Standard 450-1975, as endorsed by RG 1.129, and delete any reference to the 1980 IEEE Standard 450-1980.

D. CONCLUSION

It is the intent of NRR that battery testing conform to IEEE Standard 450-1975 as endorsed by RG 1.129. This requires that performance and service testing

reflect maintenance practices, and be accomplished without doing an equalizing charge and/or preventive battery maintenance prior to performing these tests.

E. REFERENCE

The guidance provided in this directive was extracted from a memorandum from Hugh L. Thompson, Jr., Director, Division of Licensing, NRR, to Charles E. Norelius, Director, Division of Reactor Projects, Region III, dated November 1, 1985, subject: Perry 1 Battery Testing Requirements Clarification (TIA 85-39). The memorandum is available in the Document Control System (DCS microfiche #68137-361).

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